#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 70.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-008484 Address: 333 Burma Road **Date Inspected:** 05-Aug-2009

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1730 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Japan Steel Works **Location:** Muroran, Japan

**CWI Name: CWI Present:** Yes Chung Fu Kuan No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** Tower, Jacking, and Deviation Saddles

## **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. Art Peterson was present during the times noted above for observations relative to the work being performed in Fabrication shop #4 at Japan Steel Works.

Weld Operation of Middle Stiffener Plates in-process on Saddle: Tower Saddle Segment T1-3 The QA Inspector observed the partial-joint penetration (PJP) tee-joint groove weld operation on the middle stiffener plates to the rib (cast section) and the trough (cast section) of tower saddle T1-3. The QA Inspector observed Quality Control (QC) Inspector Mr. Chung Fu Kuan verify prior to and during the PJP groove weld operation that the minimum preheat temperature of 150 degrees Celsius was maintained and the welding parameters of JSW welding personnel Mr. T. Ohkawa on stiffener plate no. 9ST-22 were in compliance with WPS SJ-3012-8-2 per the FCAW process in the (1G) flat position using (1.6) mm diameter TM55 electrode. The QA Inspector observed that the PJP groove weld operation was in-process at the end of the QA Inspectors' shift.

Tack-Weld Operation of Upper Stiffener Plates in-process on Saddle: Tower Saddle Segment T1-3 The QA Inspector observed the tack-weld operation on the upper stiffener plates fit-up to the rib (cast section) and the trough (cast section) of tower saddle T1-3. The QA Inspector observed Quality Control (QC) Inspector Mr. Chung Fu Kuan verify prior to and during the tack-weld operation that the minimum preheat temperature of 150 degrees Celsius was maintained and the welding parameters of JSW welding personnel Mr. Y. Ohta (08-2017) on upper stiffener plate no. 9ST-13, 9ST-14, and 9ST-15 were in compliance with WPS SJ-3012-8-1 per the SMAW process in the (1G) flat position using (4.0) mm diameter LB-52A electrode. The QA Inspector observed that the tack-weld operation was in-process at the end of the QA Inspectors' shift.

# WELDING INSPECTION REPORT

(Continued Page 2 of 2)

NDT Operation in-process on Saddle: West Deviation Saddle Segment W2-W2

The QA Inspector observed Nikko Inspection Services (NIS) Quality Control (QC) NDT Inspector Mr. R. Kumagai (#132) performing the magnetic particle test (MPT) inspection (dry method) of the partial-joint penetration (PJP) groove welds after the final post weld heat treatment (PWHT) stress relief operation on the rib plate to stem plate; stem plate to base plate; and the rib plate to base plate of west deviation saddle segment W2-W2. The QA Inspector observed that the MPT inspection was in process at the end of the QA Inspectors' shift.

Re-positioning of Saddle: West Deviation Saddle Segment W2-W3

The QA Inspector observed that JSW personnel were re-positioning west deviation saddle segment W2-W3 in preparation to start the welding on the 2nd side of the stem (cast section) to stem plate (built-up section) partial-joint penetration (PJP) double bevel groove butt-joint weld 6-2. The QA Inspector observed that the re-positioning of the west deviation saddle segment was in process at the end of the QA Inspectors' shift.

Unless otherwise noted, all observations reported on this date appeared to be in general compliance with the applicable contract specifications.

## **Summary of Conversations:**

No significant conversations were reported on this date.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy, 510 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Peterson,Art	Quality Assurance Inspector
Reviewed By:	Guest,Kittric	QA Reviewer